

691.3

Massey

1919
CATALOG

General Information on

MASSEY
Factory-Made
REINFORCED
CONCRETE
PRODUCTS



MASSEY CONCRETE PRODUCTS
CORPORATION

C. F. MASSEY COMPANY
UNIVERSAL CONCRETE PRODUCTS CO
CANADIAN CONCRETE PRODUCTS CO LTD.

Peoples Gas Building CHICAGO

Massey Factory-Made Concrete Products



Massey Factory-Made Concrete Products

labor and standardized production are some of the factors which make our products superior.

In addition, factory facilities make it possible for us to keep standard products in stock ready for shipment and installation. This eliminates delay which frequently occurs when the old method of field construction is relied upon.

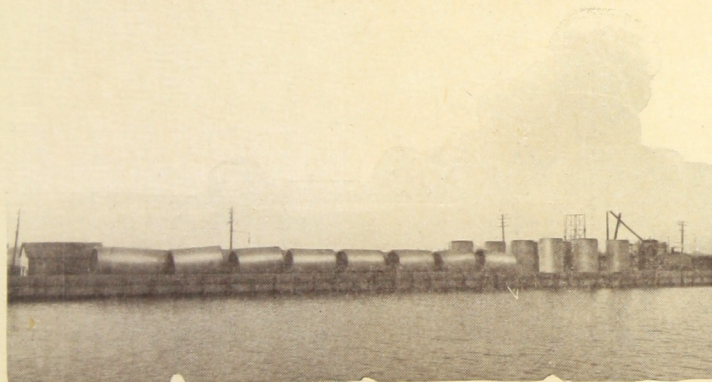
Here is a partial list of the concrete products manufactured by us:

Culvert Pipe	Meter Boxes	Pipe Carrier Foundations
*Telegraph Poles	Smoke Jacks	Cattle Passes
Battery Wells	*Ornamental Lighting Standards	Transformer Stations
Manholes	Crossing Planks	Relay Posts
Telephone Booths	Cable Posts	Roof Slabs
Piling	Oil Houses	Mile Posts
Sewer Pipe	Pressure Pipe	Junction Boxes
Switchmen's Houses	Hydrant Boxes	Station Houses
Battery Boxes	Markers for Railroads	Trunking
Trestle Slabs	Cable Test Houses	
Fence Posts		

*Made by the Centrifugal process.

We are prepared to cooperate to the fullest extent in meeting your requirements for concrete products. Consult with us as to the economy possible through proper adaptation of standard units before determining on a special design.

Massey Concrete Products Corporation



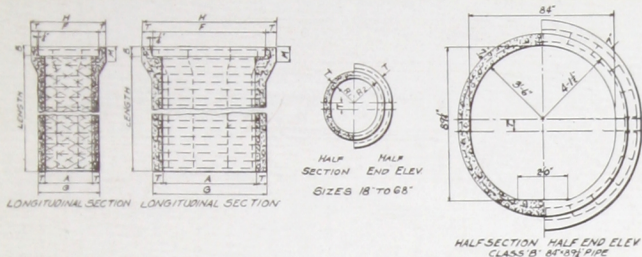
Massey Standard Culvert and Sewer Pipe

REINFORCED concrete pipe of our design has proved itself the most popular form of construction for a wide variety of uses, including railway and highway culverts and drains and sewers of all kinds.

The principal points of superiority are its low cost, ease of installation, absence of maintenance expense, and long life due to the elimination of hazard from fire, corrosion, electrolysis, etc. The reinforcement is placed in a single line located in the region of tension throughout.



Massey Factory-Made Concrete Products



SIZE	E	A	G	H	T	M	B	R ₁	R ₂	F	WATER AREA	EXCESS WATER AREA OVER CHD	LENGTH OF PIPE	WEIGHT PER FOOT
18x20	18	20 1/2	2 1/2	2 7/8	3 1/2	6	4	0 1/2	1 1/2	2 1/2	2.08	17.6	8'-0"	185
24x27	24	27	2 9/16	3 1/4	3	6	4	1 1/2	1 3/4	2 1/2	3.64	15.5	8'-0"	290
30x33	30	33 1/2	3 1/4	4 1/4	3 1/2	6	4	1 3/8	1 7/8	3 1/2	5.64	14.9	8'-0"	418
36x40	36	40	4 1/4	4 9/16	4	6	4	1 5/8	1 10/16	4 1/2	8.06	14.0	8'-0"	562
42x46	42	46	4 5/8	5 1/4	4	6	4	1 7/8	2 1/8	4 7/8	10.71	11.3	8'-0"	648
48x52	48	52 1/2	5 1/4	5 10/16	4 1/2	6	4	2 0	2 1/4	5 1/4	18.97	11.0	8'-0"	812
60x65	60	65 1/2	6 3/8	7 1/8	5	8	5	2 1/2	2 11/16	6 1/4	21.72	10.6	6'-0"	1184
68x72	68	72	7 1/4	8 1/4	5 1/2	8	5	2 5/8	3 1/8	7 1/4	28.05	11.2	6'-0"	1420
84x89	84	89 1/2	8 7/8	10 0	7	8	7	3 1/2	4 1/2	8 1/2	48.64	10.8	6'-0"	2335

Culvert Pipe

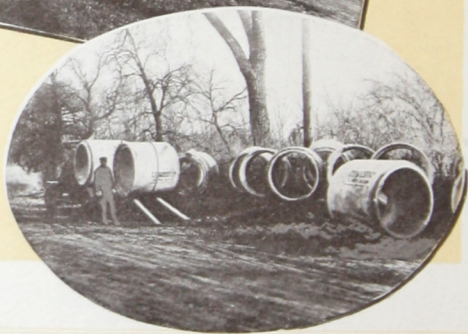
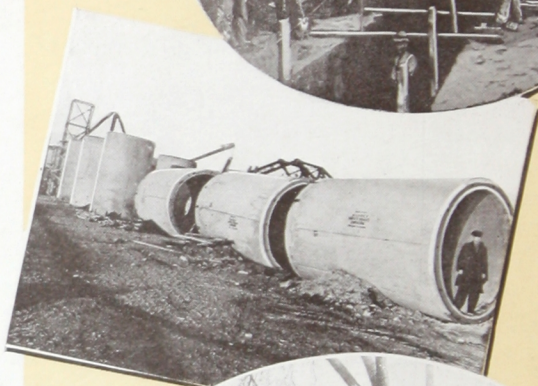
Massey Reinforced Concrete Pipe with Bell and Spigot Joint,
18-84 in. Diam.

This pipe is built in three standard classes. The earliest and most widely known form is the Class "B" pipe which is the standard pipe for railway culverts and cattle passes.

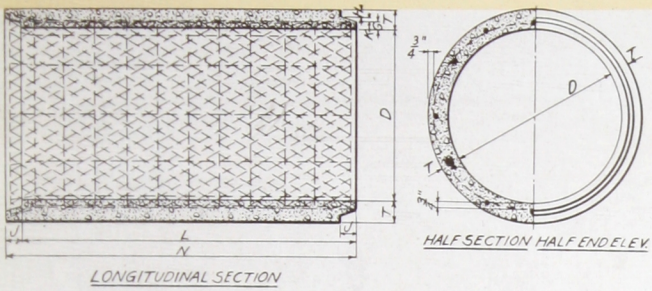
This pipe is favored for railway use on account of the ease with which a culvert can be put in place, thereby eliminating costly interruptions to train service. Its use also has the important advantage of eliminating the expensive field mixer plant with the necessary material storage, chutes or wheelbarrow runways and a big gang. In one of the illustrations on the opposite page, a concrete culvert is being laid on a new line by four men with a chain hoist.

In addition to the Class "B" we are prepared to furnish Class "A" and Class "AA" pipe. These classes may be used where conditions warrant for electric railway culverts, highway culverts and sewers. The three classes mentioned above are available in sizes ranging from

Massey Factory-Made Concrete Products



Massey Factory-Made Concrete Products



SIZE OF PIPE	T	J	G	H	K	N	L	WATER AREA	WT PER FOOT
12"	2"	1 1/2"	1 1/2"	1 1/2"	1"	4'-1 1/2"	4'-0"	79"	88"
15"	2 1/2"	2"	1 1/2"	1 1/2"	1"	4'-2"	4'-0"	112 1/2"	122"
18"	2 3/4"	2 1/4"	1"	1 1/2"	1 1/2"	4'-2 3/4"	4'-0"	177"	161"
24"	3"	2 3/4"	1 1/4"	1 1/2"	1 1/2"	4'-2 3/4"	4'-0"	314"	254"
30"	3 1/2"	3 1/4"	1 1/4"	1 1/2"	1 1/2"	4'-3 1/2"	4'-0"	491"	368"
36"	4"	3 1/2"	1 1/2"	1 1/2"	1 1/2"	4'-3 1/2"	4'-0"	707"	503"
42"	4 1/2"	3 3/4"	1 3/4"	2 1/4"	1 1/2"	4'-3 3/4"	4'-0"	962"	657"
48"	5"	4 1/2"	2"	2 1/4"	2"	4'-4 1/2"	4'-0"	1257"	832"
54"	5 1/2"	4 3/4"	2 1/4"	2 3/4"	2 1/2"	4'-4 3/4"	4'-0"	1590"	1028"
60"	6"	5 1/2"	2 1/2"	2 3/4"	3"	4'-5 1/2"	4'-0"	1964"	1244"
66"	6 1/2"	5 3/4"	2 3/4"	3 1/4"	3 1/2"	4'-5 3/4"	4'-0"	2376"	1480"

Sewer Pipe

Massey Reinforced Concrete Pipe with Tongue and Groove Joint, 12-66 in. Diameter

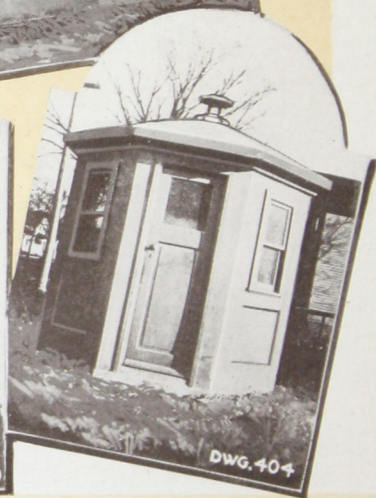
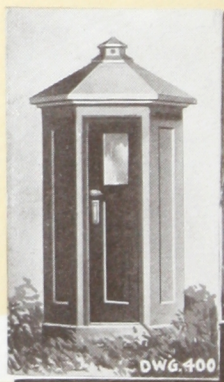
12 inches to 84 inches in diameter, the sizes up to 48 inches being made in 8-foot lengths and the larger sizes in 6-foot lengths.

The detailed dimensions and weights of the various classes and sizes are shown in the accompanying drawings and tables.

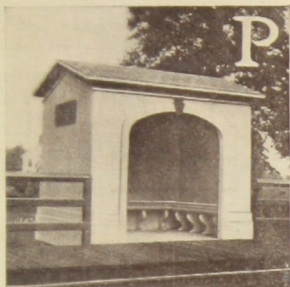
For highway culvert work our concrete pipe has important advantages. It is low in first cost, and requires very little time to install, as the trench need not be kept open longer than the time required to fill it.

Call on us for full information regarding any problems in the use of culverts or sewer pipe which you may have under consideration. We will co-operate gladly.

Massey Factory-Made Concrete Products



Massey Concrete Houses



PORTABLE concrete houses can be adapted to a wide variety of uses, such as telephone booths, switchmen's houses, oil houses, cable test houses, station houses and transformer stations. They are cast in one piece with adequate reinforcement. They can readily be picked up and moved to any desired location.

These portable concrete houses are comparatively low in cost, permanent, practically indestructible, and require little or no maintenance. They are attractive in appearance, being finished in a natural cement color on the outside, and can be furnished with a special white acid-proof paint on the inside if desired.

The illustrations show a few of the standard designs with their drawing numbers. There are in addition other standard sizes and styles enabling you to make a selection to meet any usual requirement. Write for full information.



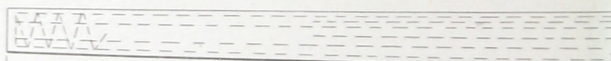
Massey Factory-Made Concrete Products



Hollow Reinforced

THE improved centrifugal casting process for producing hollow reinforced concrete poles. The mixture of concrete ingredients is placed in metal forms and rotated at high speed in a special machine. The centrifugal force drives the mixture against the inner wall of the form, making a hard compact wall of concrete with a density and with an ultimate strength greater than that obtainable by ordinary methods.

These poles are hollow, reducing the weight so they can be easily shipped and installed. The hollowing process and the high strength of the concrete make them of extreme strength.



LENGTH

LENGTH	GROUND LINE TO BUTT	CLASS 4000			CLASS 53000		
		d	D	APPROX. WT.	d	D	APPROX. WT.
20'-0"	4'-0"	8 $\frac{1}{2}$ "	13 $\frac{1}{2}$ "	1800*	7 $\frac{1}{2}$ "	12 $\frac{1}{2}$ "	1400*
25'-0"	5'-0"	8 $\frac{1}{2}$ "	14 $\frac{1}{2}$ "	2415*	7 $\frac{1}{2}$ "	13 $\frac{1}{2}$ "	1980*
30'-0"	5'-6"	8 $\frac{1}{2}$ "	15 $\frac{1}{2}$ "	3200*	7 $\frac{1}{2}$ "	15 $\frac{1}{2}$ "	2590*
35'-0"	6'-0"	8 $\frac{1}{2}$ "	17"	4080*	7 $\frac{1}{2}$ "	16 $\frac{1}{2}$ "	3325*
40'-0"	6'-6"	8 $\frac{1}{2}$ "	18 $\frac{1}{2}$ "	4800*	7 $\frac{1}{2}$ "	17 $\frac{1}{2}$ "	4150*
45'-0"	7'-0"	8 $\frac{1}{2}$ "	19 $\frac{1}{2}$ "	6525*	7 $\frac{1}{2}$ "	18 $\frac{1}{2}$ "	5100*

POLES ARE GUARANTEED TO WITHSTAND A PULL IN POUNDS EQUAL TO THEIR CLASS

Massey Factory-Made Concrete Products

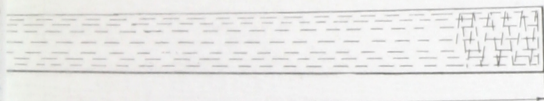
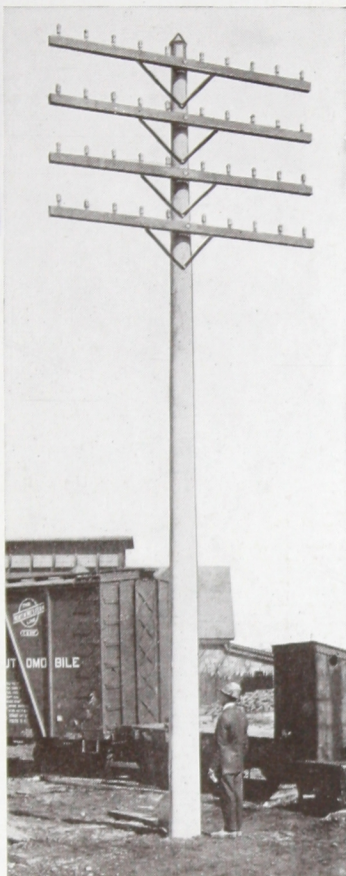


Concrete Poles

The process for manufacturing concrete poles makes possible the unusual qualities. A concrete pole, carefully graded, is a product that is revolved at high speed.

The centrifugal force causes the concrete to be pressed against the inside of the forms, creating a waterproof mass of great strength far greater than ordinary methods.

Making them flexible and strong so that they are easy to handle. The accuracy of placing the reinforcement of the concrete gives



CLASS 2000		CLASS 1500			CLASS 1000		
D	APPROX.WT	d	D	APPROX.WT.	d	D	APPROX.WT
12"	1230*	6 $\frac{3}{8}$ "	11 $\frac{3}{8}$ "	1150*	5 $\frac{3}{8}$ "	10 $\frac{3}{8}$ "	875*
13 $\frac{1}{2}$ "	1735*	6 $\frac{3}{8}$ "	12 $\frac{5}{8}$ "	1530*	5 $\frac{3}{8}$ "	12"	1200*
14 $\frac{1}{2}$ "	2305*	6 $\frac{3}{8}$ "	13 $\frac{3}{8}$ "	2050*	5 $\frac{3}{8}$ "	13 $\frac{1}{2}$ "	1575*
15 $\frac{1}{2}$ "	2980*	6 $\frac{3}{8}$ "	15 $\frac{1}{8}$ "	2660*	5 $\frac{3}{8}$ "	14 $\frac{1}{2}$ "	1995*
17"	3730*	6 $\frac{3}{8}$ "	16 $\frac{3}{8}$ "	3425*	5 $\frac{3}{8}$ "	15 $\frac{3}{8}$ "	2340*
18 $\frac{1}{2}$ "	4640*	6 $\frac{3}{8}$ "	17 $\frac{3}{8}$ "	4150*	5 $\frac{3}{8}$ "	17"	2940*

*TIMBER WHEN APPLIED 2'-0" FROM TOP AND BUTT BURIED IN GROUND AS INDICATED.

Massey Factory-Made Concrete Products



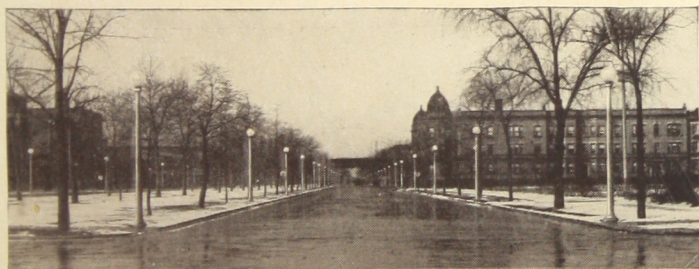
Massey Factory-Made Concrete Products



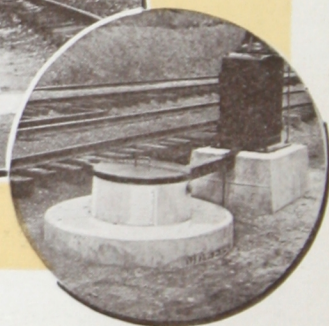
For telegraph and transmission lines it is important to note that the capacity of a line can be greatly increased by the use of these poles without reducing the factor of safety. Cross arms can be applied by bolting in gains on the pole and bracing them in the same manner as on a wooden pole.

Concrete trolley poles of the Massey design are low in first cost, they are not affected by electrolysis and require no painting. A most attractive finish and absolutely durable construction are provided in the ornamental lighting pole. In some cases it is feasible to combine the railway and lighting poles with obvious economy.

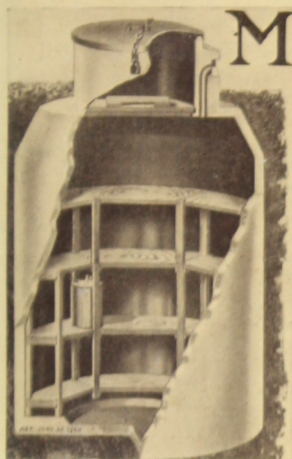
The data which we have on experimental tests of these poles will be sent to any one interested in pole construction.



Massey Factory-Made Concrete Products



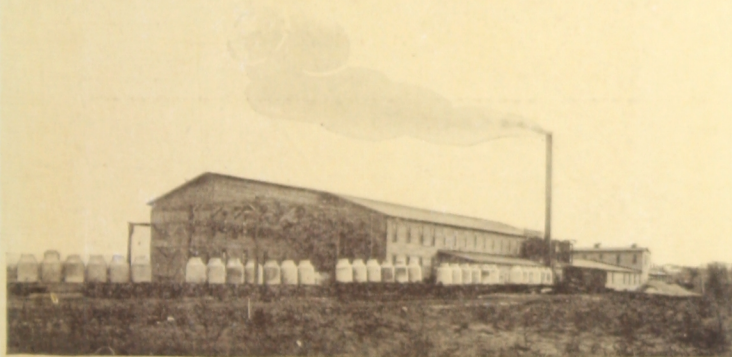
Massey Concrete Battery Wells and Boxes



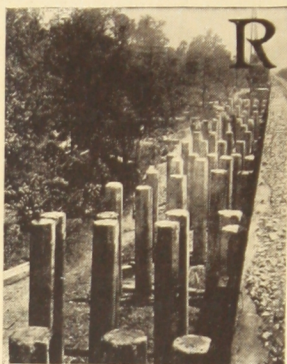
MASSEY concrete battery wells are now accepted as standard on most of the large railways. They are less expensive than other efficient means of housing electric equipment and together with the Massey battery boxes, cable posts, etc. they form a system which is easily and quickly installed, absolutely permanent, and which requires practically no maintenance.

Battery wells, in common with other products manufactured by us, are covered by patents and we are in position to guarantee our customers free and unrestricted use of these products and to assure them protection from litigation.

Battery wells are made to fit practically any requirements. Consult us for suggestions concerning their most economical use.



Massey Reinforced Concrete Bridge Slabs and Piling

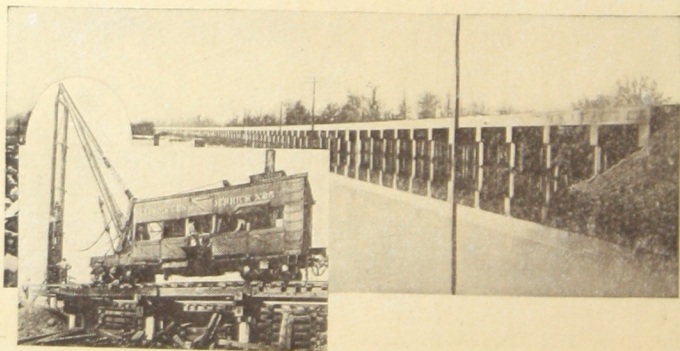


RAILWAY engineers are fast coming to a full realization of the importance of replacing their wooden and metal structures with reinforced concrete as rapidly as they require renewal. This eliminates repainting, repairing, and postpones renewal indefinitely.

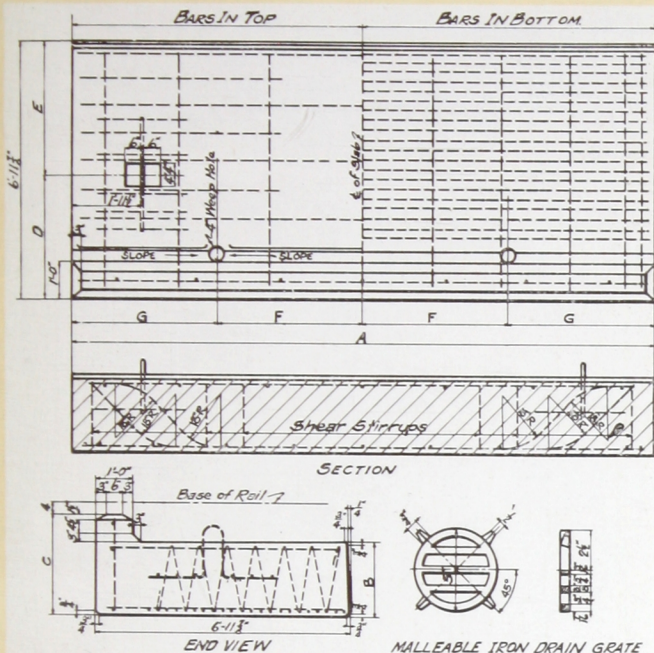
The use of factory-made concrete bridge slabs, piling, and trestle bents is more economical than field work and provides a stronger, better structure. The first cost is lower and the amount of labor required for construction is materially reduced.

Factory-made bridge units are produced under ideal conditions for making reinforced concrete. This eliminates practically the only valid objection that has ever been raised to the use of concrete construction, the difficulty of getting uniform quality in every batch of concrete and the correct placing of reinforcement.

In addition to the high quality of our bridge units, the time and labor required to erect a concrete bridge of the factory-made type is materially less than for any other type of permanent structure.



Massey Factory-Made Concrete Products



BENTS	A	B	C	D	E	F	G	WT. OF ONE SLAB
10'-0" CTRS.	9'-11"	1'-6 1/2"	2'-2 1/2"	3'-3 1/2"	3'-8"	2'-6"	2'-5 1/2"	17,000 Lbs.
12'-0" CTRS.	11'-11"	1'-8"	2'-4"	3'-4"	3'-7 1/2"	3'-0"	2'-11 1/2"	21,700 Lbs.
14'-0" CTRS.	13'-11"	1'-10"	2'-6"	3'-6"	3'-7 1/2"	3'-0"	3'-11 1/2"	27,700 Lbs.
16'-0" CTRS.	15'-11"	2'-1"	2'-9"	3'-4 1/2"	3'-7 1/2"	4'-0"	3'-11 1/2"	36,000 Lbs.
18'-0" CTRS.	17'-11"	2'-4"	3'-0"	3'-4 1/2"	5'-7 1/2"	4'-6"	4'-5 1/2"	45,000 Lbs.
20'-0" CTRS.	19'-11"	2'-10"	3'-6"	3'-4 1/2"	5'-7 1/2"	5'-0"	4'-11 1/2"	60,500 Lbs.

LOADING: COOPERS E 60-IMPACT 50%

CONCRETE STRESSES

COMPRESSION 650*

SHEAR 40° & 90°

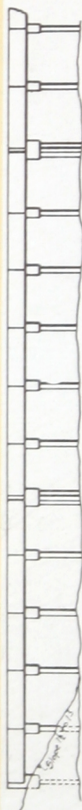
BOND 100*

STEEL STRESS

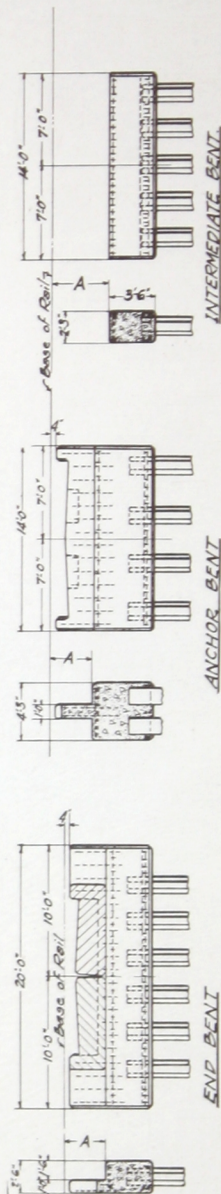
TENSION 16000*

The standard Massey bridge slab is designed for Cooper's E-60 loading and can be furnished in lengths up to 24 ft. The use of these slabs is not confined to pile trestle construction. They can be applied equally well on pier trestles and culverts. We have developed a lighter design for the ballasted floor of steel bridges which is also applicable for the floor of concrete arch bridges, where the slabs are supported on the spandrel walls. These slabs are easily handled

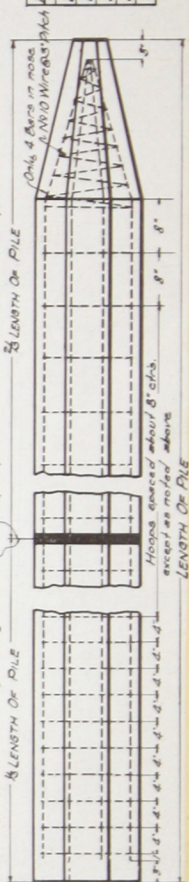
LENGTH OF SUB	10'	12'	14'	16'	18'	20'
A	2' 6 1/2"	2' 8"	2' 10"	3' 1"	3' 4"	3' 10"



TYPICAL CONCRETE PILE TREESTLE

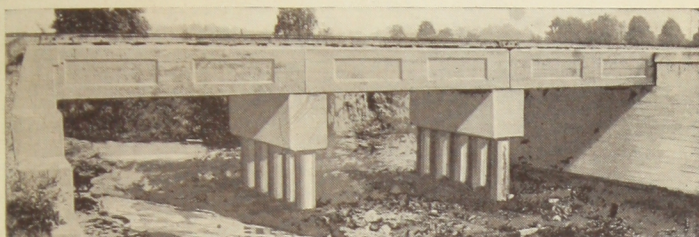


Pile to be pointed with black band of this point to indicate proper place for attaching standing line. Hoops spaced 4" c/c for 4' each side of this point.



LENGTH OF PILE	WEIGHT PER FT.
20 TO 25 FT.	225 Lbs.
26 TO 30 FT.	227 Lbs.
31 TO 35 FT.	228 Lbs.
36 TO 40 FT.	230 Lbs.
41 TO 45 FT.	235 Lbs.

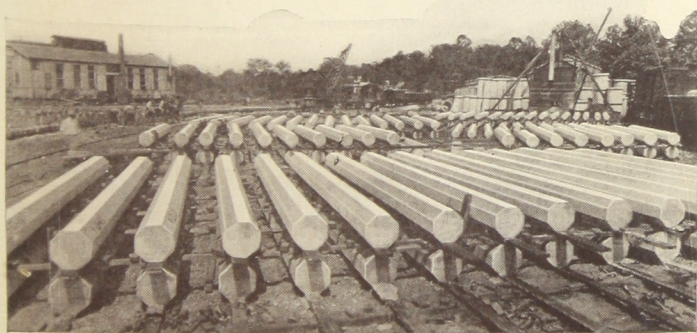
Massey Factory-Made Concrete Products



by a derrick, making installation rapid and labor costs low. A small gang can do this work, which is an important factor.

Massey reinforced concrete piling is being extensively used as standard construction on many railways and is being regularly accepted by the United States government. Its use produces a very economical trestle construction. It is also in wide use as foundation piling and is equally advantageous in this field. The un-retouched photograph on page 18 demonstrates that these piles can be driven without brooming.

Send for complete information on Massey factory-made bridge units. We can offer suggestions that will mean a more economical bridge budget in the future.



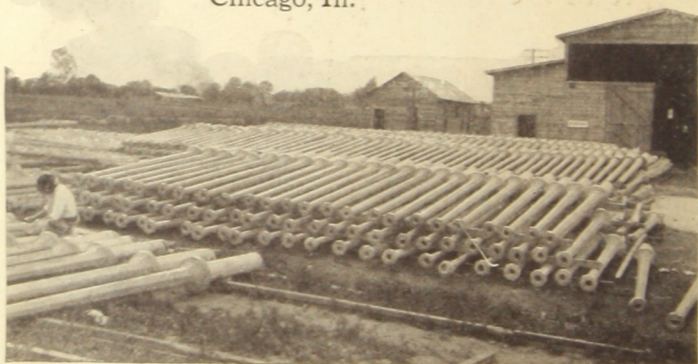


Shipping Facilities

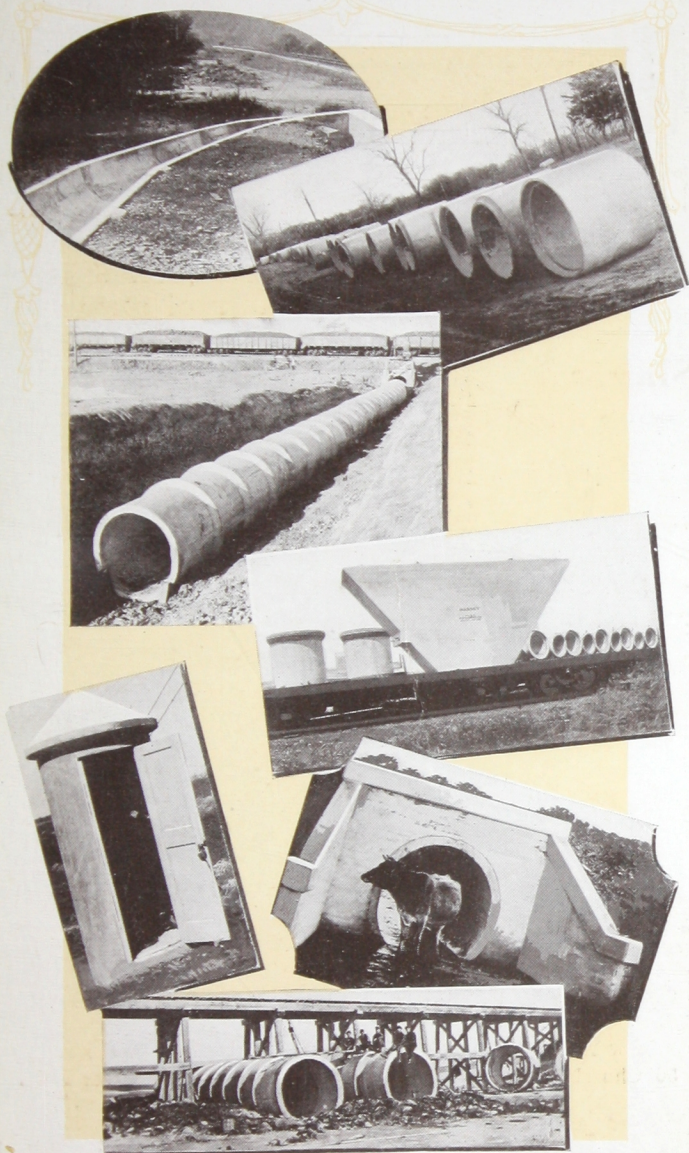
The wide distribution of our manufacturing plants and storage yards and their location at advantageous shipping centers, enables us to furnish products at convenient f. o. b. points, saving the purchaser time on deliveries and greatly reducing transportation costs.

Plants are located at Newark, N. J., Pittsburgh, Pa., Columbia, S. C., Chatham, Ont., Minneapolis, Minn., Clearing (Chicago), Ill., Meridian, Miss., Dallas, Tex., Kansas City, Kan., Los Angeles, Cal., Spokane, Wash., Memphis, Tenn., and Milwaukee, Wis.

For any further information address the general office, Massey Concrete Products Corporation, Peoples Gas Building, Chicago, Ill.



Massey Factory-Made Concrete Products



Factory-Made
Reinforced Concrete
for Economy of
Construction,
Permanence, and
Elimination of
Maintenance.

DISTRICT SALES OFFICES

New York
50 Church St.

Pittsburgh
Oliver Bldg.

Atlanta
Chandler Bldg.

Dallas
Sumpter Bldg.

Salt Lake City
925 So. 6th St., West